anything wrong. He said that the bearing would last about four months and then break up.

Any information would be greatly appreciated. This is the first job I have had on his car and would like to lick it for him. A. Haroldson, Girard's Service, 22200 Gratiot at Ash, East Detroit, Mich.

THE first thing I would do on your 1934 Oldsmobile 8 would be to check the key, keyway and rear wheel hub. It is my belief that the hub is riding on a high spot on the key, with the result that excessive strain is placed on the rear wheel bearing. Unless the key is making at least 75 per cent contact with the keyway in the hub, I would suggest that you install either a new hub or carefully dress the key until it fits better. Also be sure that the key is tight in the keyway in the axle shaft.

## KNOCKS AFTER RING JOB

A 1934 Standard Chevrolet came into my shop for a ring job. I put in a good ring, ground valves and tightened connecting rod bearings. The pistons and pins were in good shape.

The motor runs fine and pulls good, but there is a rattling knock in the motor at most any speed if it is not laboring. It sounds a little like pins, but they are in good shape. Owner says this knock was not in car before.

There are other Chevrolets that come into my shop with the same noise. Campaign Garage, Campaign, Tenn.

THERE are several possible causes for the knock you describe you are having on the 1934 Standard Chevrolet. It might be timing gears, it might be end-play in the camshaft and it might be camshaft bearings.

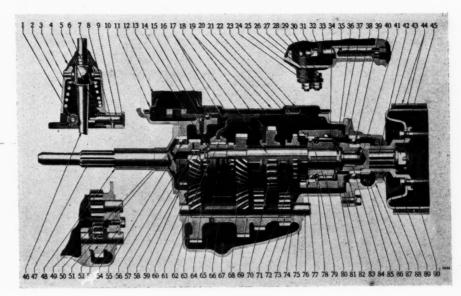
There is also the possibility that in spite of your examination of the rings and pistons that it might be piston slap or a pin knock.

As you know, it often happens when rings are installed that piston slap and pin knocks will show up when they hadn't done so with the old set of rings. I would also strongly advise making a careful check for a bent connecting rod.

## LOCKS IN GEAR

Since I subscribed to the Chilton Flat Rate Manual and Motor Age magazine, I say they are worth their weight in gold. Here is a little problem for the "Readers' Clearing House,"

I have a 1933 Plymouth, Model PD sedan and if it is not properly shifted the transmission gears will lock. For instance, when the gear shift is pushed between reverse and second or first and high gears. Can you list the causes and remedies for points



1933 Plymouth Transmission

that pit and turn black with dirt and motor gets a slight miss? Joe Jacus, Joey's Motor Service, P. O. Box 136, Manville, N. J.

THE first thing I would check on your 1933 Plymouth Model PD transmission is the end play of the second speed gear, free wheeling drive shaft and counter shaft gears. The end play of the second speed gear is controlled by shims at the snap ring which hold the transmission clutch gear in place. The maximum amount of end play at this point is .002 inch. Unless the end play is properly adjusted by the shims as indicated, difficulty may be experienced in negotiating hills with free wheeling locked out.

End play at the counter shaft gear assembly is controlled by thrust plates

Accessories and Accessory Service:

at each end of the counter shaft gear cluster. End play at this point should not be more than .005 inch.

I would also make sure that the various gears are not worn and that the free wheeling rollers are also in good condition.

In regards to pitting and burning of ignition points, this is, of course, generally caused by a defective condenser. In this connection, I would like to point out that many condensers apparently test O.K. but will not operate well in service. I therefore suggest that you try a number of condensers until you overcome the trouble. In addition, make sure that all your primary electrical connections are in good condition, particularly those at the battery and at the ground and that the distributor shaft bushing is not worn in excess of .003 inch.

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